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THE USE OF NITRITE OF AMYL FOR FINE INJECTIONS.

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Under this head let us first consider the essentials of a fine injection. There are two that must be kept ever in mind: first, to have the mass so fine that the smallest vessels may be entered and filled; second, that these fine vessels be relaxed as much as possible.

The areas to be injected should be comparatively small, for the following reasons: That there may be the most even pressure throughout the whole area, that the pressure may be better controlled; and that there may be no great and unnecessary waste of materials.

But the most important feature is to have capillaries relaxed and open to their fullest extent, and it is for this purpose that nitrite of amyl is used.

Nitrite of amyl ($C_2 H_{11} NO_5$), formed by passing nitrous fumes into amyl alcohol, is a light yellow liquid with a peculiarly penetrating and stupefying odor. Its vapor when inhaled causes a flushing of the face and quickening of the pulse, from the increased area of the blood vessels, which arises from the relaxation of the fibers of the involuntary muscles in the wall of the blood vessels. Continued breathing of these fumes will cause insensibility and even death. It will be seen, then, that the property which concerns us is that of invariably relaxing involuntary muscles.

As death from nitrite of amyl, alone, must be painful, it should always be given in connection with ether. This may be done in several ways, among which are the following:

First method—A small amount may be mixed with the ether, and this mixture poured into the anæsthetising box in which the animal is killed. After coming perfectly under the influence of the ether a sponge or cloth, moistened with pure nitrite, may be placed over the animal's nose until it is quite dead. It is not to be recommended.

Second method—The animal may be made perfectly unconscious with ether alone, and then the nitrite may be given either by pouring on a sponge and placing over the nose as before, or the animal may be taken from the box and the nitrite given by putting the sponge on the animal's nose, and then wrapping the whole head in sheet rubber or enamel cloth.

What would probably be still better would be to inject a small amount of nitrite, in normal salt solution, directly into the vessels after the animal has been killed by either of the above methods. In all cases it is well to add a little nitrite to the mass just before using.

The relaxing power of this compound is such that the great arteries will often be found collapsed.